

## REPLACEMENT CLAIMS

a1 1. (Amended) A method of forming a copper damascene structure, said method comprising the steps of:

patterning a low-dielectric constant layer to form at least one opening through said low-dielectric constant layer;

Pub B1 forming a tungsten nitride layer by atomic-layer deposition using sequential surface reactions, said tungsten nitride layer being in contact with said at least one opening; and

providing a copper layer in said at least one opening and in contact with said tungsten nitride layer, wherein said copper layer is selectively deposited by chemical vapor deposition.

Sub C1 2. (Amended) The method of claim 1, wherein said low-dielectric constant layer includes a material selected from the group consisting of methylsilsequiazane, polyimide, spin-on-polymers, flare, polyarylethers, parylene, polytetrafluoroethylene, benzocyclobutene, fluorinated silicon oxide, and hydrogen silsesquioxane.

a2 Sub C1 11. (Amended) The method of claim 1, wherein said copper layer is selectively deposited at a temperature of about 300°C to about 400°C.

a3 14. (Amended) A method of forming a copper damascene structure, said method comprising the steps of:

Pub B2 patterning a low-dielectric constant layer to form at least one opening through said low-dielectric constant layer;

a3  
cont.  
B2  
uncl

forming a tungsten nitride layer by atomic-layer deposition using sequential surface reactions, said tungsten nitride layer being in contact with said at least one opening; and

providing a copper layer in said at least one opening, wherein said copper layer is formed by electroless deposition.

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